## IN THE CLAIMS:

(Original) An optical communication system to extend a range or data communications comprising:

a mobile communication device:

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an output buffer;

an optical transmitter associated with the device;

wherein the transmitter transmits optical data comprising a message bit that is represented by a plurality of optical transmission pulses for each bit in the output buffer.

- 2. (Original) The optical communication system of claim 1, wherein the plurality of optical transmission pulses are identical for each bit in the output buffer.
- 3. (Original) An apparatus to extend a range of infrared data communication, the apparatus comprising:

a device for receiving user inputs; and

an infrared transmitter associated with the device, wherein the transmitter transmits infrared data as signals wherein a bit of infrared data is represented by a plurality of identical pulses.

- 4. (Original) The apparatus as defined in claim 3, wherein the device for receiving user inputs comprises pre-existing unmodified hardware devices selected from the group of preexisting unmodified hardware devices of: a personal data assistant, a 3Com Palm Pilot compatible device, and a Windows CE based device.
- 5. (Original) The apparatus as defined in claim 3, further comprising a display for displaying a visual representation of incoming signal strength.

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- (Original) The apparatus as defined in claim 3, wherein the incoming signal strength is 6. measured through the use of an incoming synchronization header.
- 7. (Original) The apparatus as defined in claim 3, wherein the incoming signal strength is measured through a summation of received pulses.
- 8. (Original) The apparatus as defined in claim 3, wherein the incoming signal strength is measured through graduation of the pulse width and therefore the energy of a synchronizing signal.
- 9: (Original) The method as defined in claim 3, wherein the apparatus further comprises an infrared receiver for receiving incoming signals from a stationary object wherein the infrared receiver and infrared transmitter comprise a transceiver for asymmetric communication for slow transmission and fast reception of information.

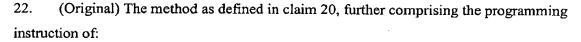
10-19 (Cancelled)

20. (Original) A method for extending a range of infrared data communication between a user device and another object, the method on the user device comprising the steps of:

receiving user inputs on a user device; and

transmitting infrared data as signals from an infrared transmitter associated with the device, wherein a bit of infrared data is represented by a plurality of identical pulses.

21. (Original) The method as defined in claim 20, wherein the step of receiving user inputs includes receiving user inputs on a user device comprising user pre-existing unmodified hardware devices selected from the group of user pre-existing unmodified hardware devices of: a personal data assistant, a 3Com Palm Pilot compatible device, and a Windows CE based device.



displaying a visual representation of incoming signal strength on a display associated with the user device.

23. (Original) A computer readable medium containing programming instructions for extending a range of infrared data communication between a user device and another object, the method on the user device, the computer readable medium comprising the programming instructions of:

receiving user inputs on the user device; and

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transmitting infrared data as signals from an infrared transmitter associated with the device, wherein a bit of infrared data is represented by a plurality of identical pulses.

- 24. (Original) The computer readable medium as defined in claim 23, wherein the programming instruction of receiving user inputs includes receiving user inputs on a user device comprising user pre-existing unmodified hardware devices selected from the group of user pre-existing unmodified hardware devices of: a personal data assistant, a 3Com Palm Pilot compatible device, and a Windows CE based device.
- 25. (Original) The computer readable medium as defined in claim 23, further comprising the programming instruction of:

displaying a visual representation of incoming signal strength on a display associated with the user device.